San Jacinto River Waste Pits
RI/FS Oversight
Justification for Adding Tissue/Biota Sampling and Removing Surface Water Sampling
April 7, 2016

Adding Tissue Sampling/Analysis

The EPA has directed the Potentially Responsible Parties to perform tissue sampling in the vicinity of the San Jacinto River Waste Pits as an additional line of evidence to confirm that dioxin/furan is not migrating out of the waste pits and into the San Jacinto River. Past tissue sampling showed an elevated dioxin/furan concentration in tissue samples collected adjacent to the waste pits prior to construction of the temporary armored cap in 2011. New sampling is expected to confirm that tissue concentrations are currently much lower than samples collected prior to cap construction. The purpose of the split tissue samples is to confirm the results obtained from the Potentially Responsible Parties' laboratory.

Removing Surface Water Sampling/Analysis

The sampling originally included in the task order envisioned traditional surface water sampling. However, the need has arisen to achieve a detection limit that is more than 100 times less than the typical detection limits. To accomplish this, the Potentially Responsible Parties will be collecting samples that are approximately 200 liters, much larger than regular samples. There are no documented methods to perform splits for this type of sampling. Field duplicate samples in the past have shown that concentrations of individual congeners often differ by about a factor of 2 in suspended matter on the same day, and dissolved concentrations similarly vary, but in at least one case (1,2,3,4,7,8,9-heptachlorodibenzofuran at Station 11264), the dissolved concentrations differed by a factor of nearly 12 between the field duplicates. For those locations at which field duplicates were collected, there was often substantial variability between duplicates for all of the congeners. The purpose of collecting split samples is to confirm the Potentially Responsible Parties' laboratory results, but the large variability in sample data do not allow a valid comparison. Therefore there will be no value in collecting the split surface water samples, and the resources can be better used for collecting tissue split samples.

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